



ABOVE • NIH preschoolers get badge stickers on Police Day. See coverage on p. 12.

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# nih record

*No Evidence of Magic Bullet*

## Nothing Proven to Ward Off Alzheimer's, Panel Says

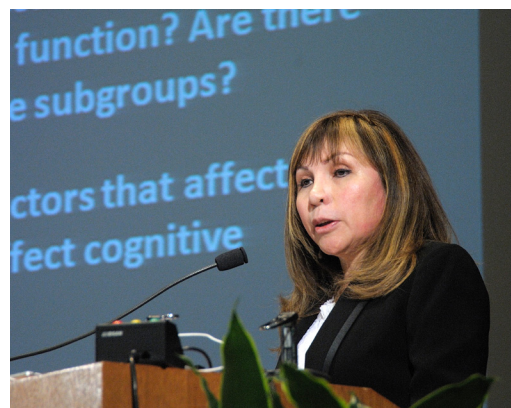
By Carla Garnett

**I**t wasn't the news anyone wanted to hear: Currently, there's no conclusive evidence that taking any substance or engaging in any activity can prevent or delay Alzheimer's disease or cognitive decline, according to an independent panel convened by the NIH Office of Medical Applications of Research. The panel, however, also concluded that interventions such as exercise or diabetes control—already known to benefit healthy aging—might be a productive line of study.

The state-of-the-science group announced its findings Apr. 28, after hearing 2 full days of medical experts discuss both Alzheimer's and age-related cognitive decline.

"It is tragic that just as we have succeeded in extending lifespan and decreasing disability due to so many other causes that we now face an increasing urgency in address-

SEE ALZHEIMER'S, PAGE 8



Panel chair Dr. Martha Daviglus delivers the conference state-of-the-science statement.

*Reinventing Himself Yet Again*

## Hard of Hearing Computer Whiz Revives His Passion for Guitar

By Valerie Lambros

Music has almost always been a part of Charles Mokotoff's life—almost, because for many years the highly skilled musician kept his guitar and talents tucked in the back of a closet.

He began reading music in third grade when he learned to play the French horn. Later, in high school, he did what many young men in the 1970s did: he grew his hair long and played guitar in a rock band.

But one day, at age 15, he woke up and could barely hear. He had experienced a profound hearing loss, overnight. Doctors said it may have been due to a virus or to taking antibiotics to combat ear infections. Whatever the cause, his hearing was not coming back. He used his long hair to cover the hearing aid he wore in order to hear much of anything at all, and continued to play guitar, practicing over and over to be sure he got it right.

SEE MOKOTOFF, PAGE 4

## Secure Home Life Key To Preventing Bullying Behavior

By Jan Ehrman

Home may be where the heart is, but it's also where the early markers for childhood bullying may begin, according to experts at NICHHD.

It happens in schoolyards throughout America—in rural and urban neighborhoods, on the playground, and even by way of electronic media. Bullying, which can involve threats, torment or physical harm involving children and adolescents and is often related to appearance or social status, is a serious, widespread problem.

The public may have first learned about bullies by watching films of *Our Gang* in the 1920s or the mid-1950s television favorite, *The Little Rascals*. In both, Butch, the neighborhood tyrant, regularly tormented other members of the fun-loving, mischievous group. Though viewed in a primitive, comical setting that only early media could provide, bullying is no joke. And it is pervasive.

SEE BULLYING, PAGE 10



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## briefs

### Chance to Comment on CC Treatment of Ft. Detrick Exposures

The final environmental impact statement for the transport of laboratory personnel potentially exposed to infectious agents from Ft. Detrick to the Clinical Center is now available online at [http://nems.nih.gov/aspects/nat\\_resources/programs/nepa.cfm](http://nems.nih.gov/aspects/nat_resources/programs/nepa.cfm). NIH will accept, review and consider comments throughout the 30-day waiting period, which ends at midnight on June 16. Comments may be sent to Valerie Nottingham, Division of Environmental Protection, Bldg. 13 Rm. 2S11 or emailed to [nihnepa@mail.nih.gov](mailto:nihnepa@mail.nih.gov).

### Camp Fantastic BBQ Set, June 15

Lunch will be served hot off the grill for the annual Camp Fantastic Barbecue on Tuesday, June 15 on the Bldg. 31A patio. Your \$10 ticket buys your choice of two sandwiches (pulled pork, pulled chicken, hotdog), chips, coleslaw, a drink and ice cream, as well as a ticket for the door prize drawing. There will also be live music, country line dancing, popcorn and games. Tickets will be on sale at all R&W stores as well as onsite. Everyone is welcome. Proceeds benefit the camp and NIH charities. June 16 is the rain date. For more information, call the NIH Recreation & Welfare Association, (301) 496-6061.

### OHR Wins IHRIM 2010 Partners Award

NIH's Office of Human Resources recently won the IHRIM 2010 Partners Award. The IHRIM (International Association for Human Resources Information Management) award is presented to organizations that have made significant contributions to the practice of human resources information management or to supporting the mission and goals of IHRIM. OHR is the first federal organization to win the honor. The award recognized years of NIH partnership with IHRIM. Some of the earliest OHR members joined IHRIM in 1999, and OHR has continued its involvement with an average of three OHR members per year. Kevin P. Murphy, director of NIH's HR Systems, Analytics and Information Division, accepted the award on behalf of OHR at the IHRIM 2010 conference in Las Vegas.

### Cancer Prevention Fellowship

The Cancer Prevention Fellowship Program (CPFP) at the National Cancer Institute is accepting applications for fellows from now through Sept. 1. It offers training toward an M.P.H. degree at an accredited university during

the first year, followed by mentored research with NCI investigators. The CPFP provides competitive stipends, paid health insurance, reimbursement for moving expenses and a travel allowance to attend scholarly meetings or training. The typical duration in the CPFP is 4 years. To be eligible, applicants must possess an M.D., Ph.D., J.D., or other doctoral degree in a related discipline. Applicants must also be U.S. citizens or permanent residents. To learn more visit <http://cancer.gov/prevention/pob> or contact [cpfpcoordinator@mail.nih.gov](mailto:cpfpcoordinator@mail.nih.gov).

### NIH Administrators Turn into Top Chefs

The NIH deputy executive officers have more talents than you might think. By day, they help run a \$30 billion per year medical research agency. And on a recent April evening, they demonstrated their culinary talents in a way that served the NIH community.

The Children's Inn at NIH regularly hosts dinners for families who stay there while they are participating in clinical trials. Groups from the community voluntarily provide, prepare and serve the meals. The deputy executive officers were looking for ways to strengthen their ties and their abilities to solve mutual problems. When they learned about the inn family dinners, they offered to prepare a meal as both a team-building and a community service activity.

"I think that we will find a lot of value on multiple levels as a result of doing this project," said Chad Wysong, deputy executive officer of NIDCD, during planning for the event.

About a dozen deputy EOs worked together to plan the menu for the evening. Their goal was to make the families feel like they were eating at their kitchen tables at home. The deputies pulled some long hours to bake penne pasta with alfredo sauce, meat and vegetable lasagna, baked ziti and traditional spaghetti and meatballs. Ellen Rolfes, deputy EO at NHGRI, baked cupcakes as a finishing touch to the dinner, frosting the last batch at 12:30 in the morning.

The kitchen at the Children's Inn was full of activity that night, serving approximately 50 guests. After dinner, everyone pitched in to clean up and wash dishes. Ginger Betson, deputy EO at NIDCR, said, "Not only was it personally rewarding to be able to help the families at the Children's Inn, but it was a nice opportunity to spend some time with the colleagues in a non-work atmosphere."—Jennifer Dreier

# nih record



## Cardiovascular Research Pioneer Braunwald Reflects on NIH Career

By Morgan Woerner

Distinguished Harvard Medical School professor and cardiologist who is sometimes referred to as the “father of cardiology,” Dr. Eugene Braunwald spoke at an NHLBI staff seminar on Apr. 12, where he reflected on his explorations in cardiovascular research and the many pivotal moments that influenced his career.



Dr. Eugene Braunwald

PHOTO: BRIGHAM & WOMEN'S HOSPITAL

Braunwald also paid tribute to the many mentors—two of whom were NHLBI employees—who helped shape his career and fostered an environment where the boundaries of discovery were pushed daily. His many accomplishments include being the first cardiologist elected to the National Academy of Sciences and being recognized

by the living Nobel Prize winners in medicine and physiology as the person who has contributed the most to cardiology in recent years.

“I spent 13 of the best years of my professional life here,” said Braunwald, referring to his time at the National Heart Institute (now NHLBI). But his relationship with cardiovascular research began several years prior to his days at NIH.

In 1951, Braunwald embarked on what would be a 58-year endeavor when he was given the opportunity as a medical student to work alongside Dr. Ludwig Eichna in the cardiac catheterization laboratory at Bellevue Hospital Center in New York City. There his fascination with research took hold, primarily in five areas: valvular heart disease, acute myocardial infarction, congestive heart failure, hypertrophic cardiomyopathy and lipid metabolism.

When Braunwald began his work, the diagnostic and treatment landscape differed greatly from what it is today. Neither echocardiography nor coronary angiography were available and open-heart surgeries were not being performed. He and his colleagues were the first to use angiotensin-converting enzyme inhibitors (ACE inhibitors) to prevent adverse remodeling of an infarcted ventricle.

When Braunwald came to NIH in July 1955, he

began in the lab of Dr. Andrew Glenn Morrow, the first chief of cardiac surgery at NHI. Braunwald called his time with Morrow the “most satisfying intellectual experience.” According to Braunwald, by challenging him to write scientific papers clearly and effectively, Morrow helped move his career forward.

In an article titled “Adventures in Cardiovascular Research,” which was published last year in *Circulation*, Braunwald reflected on his time at NHI and his collaboration with Morrow. “Rarely did a week pass when we did not observe or measure something that was new...We experienced the exhilaration that we imagined Lewis and Clark must have felt when they explored the great American wilderness early in the 19th century.”

That article—and Braunwald’s talk—acknowledged another cardiology pioneer in the family: his first wife, Dr. Nina S. Braunwald (1928-1992), who also worked at NHI in the 1950s. Owing to Morrow’s guidance and encouragement, Nina was also able to see her cardiovascular research dreams through to fruition, becoming the first female cardiac surgeon in the world and the first woman to perform open-heart surgery and successfully replace a heart valve. Braunwald said his wife broke through the low and thick glass ceiling in her field because of the direction and support provided to her by mentors and colleagues at NHI.

As Braunwald said of those halcyon days, “Anyone who was doing any interesting research in the world was here at the NIH.”



## Chai To Speak on Developmental Biology, Craniofacial Malformations

On Wednesday, June 9 at 2 p.m., Dr. Yang Chai will deliver a talk titled “Developmental Biology and Prevention and Treatment of Craniofacial Malformations,” in Lipsett Amphitheater, Bldg. 10. His is the second of four talks in this year’s NIDCR Seminar Series “From Basic Research to Therapy—The Latest Frontier.”

Chai has developed cutting-edge molecular tools that have helped uncover the nature of growth factors and signaling pathways that control cell fate in the neural crest. For example, he and his colleagues created genetically engineered mice that allowed them to pinpoint the role of several growth factors that signal neural crest cells to properly form teeth, jaw and palate. Chai will discuss how manipulating these growth factors and their signaling pathways could lead to prevention and treatment of congenital abnormalities of the head and face.

Chai is the George and MaryLou Boone professor of craniofacial biology, director of the Center for Craniofacial Molecular Biology and associate dean of research at the Herman Ostrow School of Dentistry of the University of Southern California. He holds a D.M.D. from Peking University, China, where he also trained in oral and maxillofacial surgery. He earned a Ph.D. in craniofacial biology at USC and conducted postdoctoral training from 1991 to 1994. In 1996, he received his D.D.S. from USC and joined the faculty that year. Chai has received many honors and awards, including several teaching awards. He has also chaired the Gordon Research Conference on craniofacial morphogenesis and tissue regeneration.

Sign language interpretation will be provided. For more information, or for reasonable accommodation, contact Mary Daum, (301) 594-7559, and/or the Federal Relay (1-800-877-8339).

The lecture will be videocast live at <http://videocast.nih.gov>.

## MOKOTOFF

CONTINUED FROM PAGE 1

He left band life when he got to college and discovered the beauty of playing solo classical guitar. It became his major and he went on to earn a master's degree in guitar performance. He was so successful, he turned professional, teaching, recording, touring the world and playing such legendary venues as Carnegie Hall.

But in the early 1990s, after playing professionally for nearly 20 years, the lifestyle had begun to wear on him. Having felt he'd accomplished everything he could, he packed up his guitar and searched for a different path in life, something that would allow him to feel that his hearing loss wasn't such a novelty for those meeting him.



Charles Mokotoff performs at St. Alban's Episcopal Church in D.C.

PHOTO: VALERIE LAMBROS

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*"Thanks to the Internet, I can record a piece at 5 o'clock in the morning when I get up, link to it on a discussion board, and by the time I get home from work, people all over the world will have chimed in and told me what they think. How cool is that?"*

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He decided to follow the growing computer trend and began working with Gallaudet University on technology and digital communications. Looking back, he realizes what a fortunate decision it was.

"Deaf people are the ultimate consumers of digital content. We were using the Internet much before everyone else," he said. "I backed the right horse."

Mokotoff remembers giving a lecture in 1994 to the Maryland State Association of the Deaf and telling the audience they should really pay attention to this new thing called the World Wide Web. He gave examples of how it could change their lives.

"You won't have to go into the car dealership anymore or do this fax stuff. You'll be able to do your research online," he recalls saying. "How 'bout that?"

Not only was Gallaudet at the forefront of Internet technology, but also it was one of the first campuses to use email extensively. It was also a prime community to explore what would eventually become texting. Mokotoff was in the middle of it all.

"We had two-way pagers before anyone even dreamed of texting on a hand-held phone," he said. "When I had been at NIH a while, I went

back to see the CIO at the time. I walked into his office with a Blackberry and told him everyone's going to be using these things. He wasn't convinced yet."

After Gallaudet, Mokotoff joined NIH to provide Mac support and soon began working on web projects, intranets, two-way pagers and using the web to replace outdated client server technology. He was on board when the Division of Computer Research and Technology became CIT. He's been here 15 years and still favors Macs over PCs.

About 5 years ago, when his son was away at summer camp, Mokotoff, a single dad raising two children, ages 12 and 15, realized he was bored.

"There was a big hole there," he said. "I knew all this music in my head, and there was this one particular piece in my mind that I thought, 'If I played again I would definitely do that, I could play that piece. I wonder if I can remember it.'"

So he reached into the back of his closet and pulled out his guitar, the same one he'd used all over the world, and started to play.

"Other than having to change the strings, it sounded pretty good, and starting to play again was really an amazing experience," said Mokotoff, who had played barely a note in more than 15 years. "Technically, I was not that far off. It's like the bike-riding thing."



He started uploading to the Internet recordings of himself playing some of his old repertoire in order to get feedback. Everyone who posted comments kept encouraging him and telling him to start performing again.

Since taking the guitar back up, Mokotoff has played at churches and community centers, at the mansion at Strathmore and with the NIH Philharmonic. He's done some traveling, but generally only on the Eastern seaboard.

At a recent performance at St. Alban's Episcopal Church in the District, he played a concert that included a three-movement piece by Mozart that he had adapted from a work originally scored for wind trio, the four-movement *Temptation of the Renaissance* by Czech composer Štěpán Rak, and music by several Spanish composers that conjured up, in the small stone church, all the high drama of bullfighting and flamenco dancing. The program made mention of his hearing loss, but no one would have known had it not said so.

He hugged the instrument close and rocked ever so slightly, sometimes nodding his head to the beat and tapping his foot, but always paying attention to his left hand as it raced across the neck's frets. With no amplification, Mokotoff coaxed a constant swell of sound from the guitar, like an ocean rushing ashore in an ever-changing melodic tempo.

He has several other concert dates coming up and also plans to play a big concert in New York City to celebrate the 20th anniversary of the Americans with Disabilities Act this fall. Mokotoff likes knowing that his music is inspiring to others with hearing loss and to fellow players who've returned to music after years of being away from it. Most of these people may not have found him had it not been for the Internet.

"Many of my best guitar buddies, unfortunately, don't live anywhere near me," he said. "But thanks to the Internet, I can record a piece at 5 o'clock in the morning when I get up, link to it on a discussion board, and by the time I get home from work, people all over the world will have chimed in and told me what they think. How cool is that?" 🎸

## NIAMS's Katz Honored by Bar-Ilan University

NIAMS director Dr. Stephen Katz was recently awarded the Dr. Tovi Comet-Walerstein Science Award for 2010 by the Cancer, AIDS and Immunology Research (C.A.I.R.) Institute in Bar-Ilan University's Mina and Everard Goodman Faculty of Life Sciences in Ramat Gan, Israel.

Prof. Uri Nir, dean of the Goodman Faculty of Life Sciences, said the award "enables us not only to honor scientific excellence but also to become directly inspired by the scientific vision of the world's leading scientists." The award was established in memory of a medical researcher who succumbed to cancer more than a decade ago at age 38. Following her death, her family created the Dr. Tovi Comet-Walerstein Cancer Research Chair in the C.A.I.R. Institute.

Following presentation of the award, Katz gave the keynote lecture on "The Skin Immune System: An Evolving Story."

Katz has been NIAMS director since August 1995, and is also a senior investigator in NCI's Dermatology Branch. He has focused his studies on immunology and the skin. His research has demonstrated that skin is an important component of the immune system both in its normal function and as a target in immunologically mediated disease.

"I have received awards before, but this one is special," said Katz. "Dr. Comet-Walerstein epitomizes what one should aspire to in becoming a physician. She experienced both sides of the street—that of being a physician-scientist and then, of course, the other side of the street, being a patient. How moving it is that a patient should take on the responsibilities of so many that were afflicted by the same disease that she had...she was an extremely empathetic person."



*Bar-Ilan University rector Prof. Joseph Menis (l) with NIAMS director Dr. Stephen Katz*



## NIAAA Grantees Complete Leadership Program

*Two NIAAA-funded researchers have completed a program that trains senior women faculty for leadership positions at academic medical centers. Dr. Elizabeth J. Kovacs (r) of Loyola University Chicago Stritch School of Medicine and Dr. Gyongyi Szabo of the University of Massachusetts Medical School were enrolled in the year-long Executive Leadership in Academic Medicine (ELAM) Program at Drexel University College of Medicine in Philadelphia. The ELAM*

*program is dedicated to increasing the number of women in top administrative ranks in academic medical centers. During the program, they studied areas such as leadership skills, faculty development, institutional finance and strategic planning. Kovacs and Szabo, who graduated on Apr. 29, plan to use their knowledge from the ELAM program to help young alcohol researchers at their home institutions. Kovacs is director of Loyola University's Alcohol Research Program, founder of Loyola's Biomedical Internship Program and serves as president of the Society for Leukocyte Biology. Szabo is associate dean for clinical and translational sciences at the UMass Medical School and a member of the National Advisory Council for NIAAA.*





**Above, l:**  
Competitors caught some air during the tournament, but dunking on the portable basketball hoops wasn't allowed. Referees for the event included Dr. Lawrence Tabak, NIDCR director.

**Above, r:**  
Spectators got into the action, snapping photos of friends and cheering on their favorite teams.

PHOTOS: MICHAEL SPENCER



## NIH'ers Spring, Jump, Dribble Into Health

For the past few years, NIH has used the HealthierFeds President's Challenge as a chance to take its own advice, with fitness and screening events planned over the span of several weeks and many activities that encourage large groups of NIH'ers to get out of their offices and get moving.

This year's kick-off took it to a new level.

The May 4 event in front of Bldg. 1 added a layer of pizzazz and intense competition that was equally thrilling for participants and spectators alike. Perhaps as a nod to President Obama's sport of choice, this year's Spring Into Health kick-off featured a spirited tournament of 3-on-3 basketball. After opening remarks that featured a representative from the Washington Mystics basketball team and members of NIH's fitness community, guests perused the display tables while players warmed up.

Nurses from the Occupational Medical Service offered blood pressure screenings, representatives from NIH's bicycling, fencing and running clubs met with prospective new members and staff from the R&W, Office of AIDS Research and Weight Watchers offered pamphlets and helpful, healthful information.

As a special treat just before tip-off, Bal-lou High School's Majestic Marching Knights band arrived to open the tournament in grand style—stepping, stomping and chanting to the beat of the drums and twirl of the majorettes' flags. As they marched away, the players took the court, eager to begin.

Using half-courts chalked onto the pavement, the teams braved warm temperatures and battled through the bracket competing in elimination play. Some team names were as creative as the moves players used on the court: The Patho-

logic Ballers, The Mad Scientists, DNA's Finest and Nerds in Herds are some examples.

After 4 hours of near-nonstop action, the 24 teams were boiled down to two—the CIT Techno Squad and the Supo-TC All Stars.

With the sun tucked behind the trees, players took to the court one more time, twisting and lunging and leaping and maneuvering in an athletic dance that at times seemed more aerial than terrestrial. In the end, the CIT Techno Squad won the day.

Though most of the event's basketball players surely got far more than their recommended 30 minutes of physical activity a day, that's what the HealthierFeds Initiative suggests we all strive for, and there isn't a better time to get started than this spring.—Valerie Lambros



Tournament winners, the CIT Techno Squad, pose with their trophy. The team of (from l) Delwyn Garnett, Nicholas Griffin, Latara Jordan and Phi Truong bested all challengers.





*A member of the OAR Thunder drives to the basket. Playing on tight half-courts, players had to make all their moves count.*



**Above:**

*No, it's not a swordfight to determine NIH grant funding. Rather, it's Dr. Larry Pinkus (r), president of the NIH R&W Fencing Club, exhibiting sabre skills with partner Dr. Castilla McNamara of NIDCD.*

**At left:**

*The Pathologic Ballers included (from l) Rena Rodriguez of NCI, Joe Hendery of the Clinical Center, J. Patrick Gorres of NIAID, and Joe Chinquee and Nkosi Adejola of NCI.*

**Below, l:**

*Players weren't afraid to get physical, but tried to keep fouls to a minimum.*

**Below, r:**

*Ballou High School's Majestic Marching Knights gave the tournament a burst of flair.*







## ALZHEIMER'S

CONTINUED FROM PAGE 1

**Above, l:**  
Panelists Dr. Wade Berrettini  
(l) and Dr. Carl Bell

**Above, c:**  
Panelists Dr. Kathleen  
McGarry (l) and Gail Hunt

**Above, r:**  
Dr. Mary Ganguli of Western  
Psychiatric Institute and  
Clinic, University of Pittsburgh  
Medical Center, gives an over-  
view of Alzheimer's disease.

PHOTOS: BILL BRANSON

sing the problems of Alzheimer's disease and age-related cognitive decline, changes that rob older men and women of the ability to fully enjoy life in its later years," said National Institute on Aging director Dr. Richard Hodes, who opened the conference Apr. 26 in a packed Natcher auditorium. NIA was a primary sponsor of the conference with OMAR.

### Plaques and Tangles

First described in 1906 by German psychiatrist-neuropathologist Alois Alzheimer, the disease named after that physician is the most common form of dementia. Alzheimer wrote of a 51-year-old female patient who showed signs of memory loss, language problems and unpredictable behavior. After she died, he studied photomicrographs of her brain and found what became the hallmarks of the disease: abnormal clumps of protein identified as "beta-amyloid plaques" and disorderly bundles of protein called "neurofibrillary tangles."

Over the course of a lifetime, most people remain cognitively stable, experiencing only limited declines in short-term memory and processing speed. But for some, the loss in memory and cognitive function is more severe and, ultimately, interferes significantly with daily life. That's when the possibility of Alzheimer's or another form of dementia must be considered.

What complicates diagnosis, according to several conference presenters, is that physicians at the primary care level may not have enough time or sensitive enough tools to determine the nature of a patient's memory loss. For example, what differentiates normal, age-related cognitive decline from mild cognitive impairment or from the earliest stages of Alzheimer's disease?

What used to be a rarely reported disease, the panel noted in its introduction, Alzheimer's now has become "one of the most common disabling disorders among older individuals." Alzheimer's accounts for 60 percent to 80 percent of all dementia diagnoses, depending on the criteria used. Estimates vary, but experts report between 2.6 million and 5.1 million

Americans may have the disorder. That number is expected to grow as Baby Boomers age.

### What the Panel Found

The 15-member panel included experts in a number of relevant fields such as geriatrics, neurology, preventive medicine, psychiatry, human nutrition, pharmacology and nursing. Specifically selected not to be experts in Alzheimer's disease and cognitive decline, and therefore without preconceptions of the conference questions, the panel drew several conclusions:

▲ 20 years of extensive research has provided substantial information on the nature of Alzheimer's disease and cognitive decline. While critical knowledge gaps still remain, particularly in the areas of causes and prevention, a number of observational studies and a few short-term clinical trials offer new insights.

▲ Currently, outside of a neurologist's office or research setting, there are no "highly reliable consensus-based diagnostic criteria for cognitive decline, mild cognitive impairment and Alzheimer's," and available criteria at the clinician level are not "uniformly applied."

▲ Alzheimer's and related ailments are major sources of disability and death worldwide that significantly burden not only those who have the diseases, but also their caregivers and society in general.

▲ The medical community does not have enough evidence to support using any drug, dietary supplement or behavioral change to prevent Alzheimer's or cognitive decline. Results from ongoing studies in some of these areas, including studies of antihypertensive medications and physical activity, could possibly shed more light on warding off the disorders. However, it is too soon to conclude that any intervention is effective in preventing Alzheimer's or cognitive decline, the panel noted repeatedly.

▲ Large-scale population-based studies and randomized controlled trials—the gold standard evidence in medical research—will be needed to look into strategies that may help





*One of close to two dozen expert presenters at the recent conference on cognitive decline, Dr. Ronald Petersen of the Alzheimer's Disease Research Center at Mayo Clinic College of Medicine, discusses early diagnosis of the disorder.*

maintain cognitive function in people at risk for decline and find ways to delay onset and slow progression of Alzheimer's disease.

### Facts, Not Fiction

At a public reading of the panel's draft statement on day 3, several audience members expressed dismay that the conclusions were overly negative and pessimistic. During an afternoon media teleconference, several panel members addressed these concerns and sympathized with the public's frustration, emphasizing the importance of basing their findings on scientific evidence.

"Physicians can actually benefit from the information contained in this report," said panelist Dr. Evelyn Granieri of Columbia University. "It provides them with factual information."

Another panelist, Dr. Carl Bell of the University of Illinois at Chicago, said, "From a personal perspective, being 63, I'm scared to death of this disorder and I know that a lot of my Baby Boomer colleagues are also terrified."

Such fears, the panel acknowledged, can cause people to spend money on herbal treatments and other interventions that have not been proven. That's exactly where panel members hope this report can help.

"Since we don't have any solid evidence that there is anything to prevent either cognitive decline or dementia, we hope physicians will discuss this report with their patients and...dissuade folks who have this and their caregivers from spending extraordinary amounts of money on stuff that doesn't work," Bell concluded.

In the meantime, there is something people can do to help fight Alzheimer's, another panelist pointed out.

"One of the most important things doctors and people who start to recognize problems can do is to get engaged in the research community," said Dr. Arnold Potosky of Georgetown University. "There's a vital need for more research. Our conclusions were heavy on recommendations to do more to track these diseases over the long term, to learn more about their causes and progression." 📌

## NIH Police Launch Crime-Fighting Web, Text-Messaging Tip Service

Mobile phone users throughout the NIH community now have the ability to provide anonymous crime-fighting tips through the power of text-messaging and the Internet. Using law enforcement tip management software, the service allows citizens to send tips to the NIH Police via text message from a cell phone or by sending a tip online.

"The popularity of text-messaging has created a significant opportunity for the public to help law enforcement agencies fight crime," said Chief Alvin D. Hinton, director, Division of Police, Office of Research Services. "The ability for any citizen who owns a mobile phone to assist in crime solving is of great importance to communities globally and we are excited to play such a pivotal role in the transmission of these crime-fighting tips."

"I have been in law enforcement for over 24 years and this is the most innovative, progressive tool I have seen in my career," said Cpl. John Ritch, community policing officer for the division. "This program strengthens our partnership with the community. It helps us reach our mutual goal of security and safety for the NIH. We cannot do it alone. We are asking the NIH community to take an active role in reducing crime. Fortunately, our campus currently experiences a very low crime rate. Together, with this new tool, we can keep it that way."

Information may be anonymously received and securely replied to with complete confidence. The service was built specifically to allow text-messaging users to remain anonymous by encrypting the text messages and routing them through several secure servers, protecting the personal details of the sender.

The service, called TipSoft, also allows police to respond by text message to the originating cell phone without ever knowing the identity of the individual who left the tip. The user's information is always given an alias and a unique ID before being sent. This secure application allows the tipster and the investigator to have two-way dialog while always keeping the user's identity anonymous.

The public may also send secure and anonymous tips online, using the same online tip provider. Senders can upload images with their tip and investigators can engage in anonymous two-way dialogue with the tipster.

The NIH Police encourage everyone to report information about any non-urgent criminal activity such as theft, vandalism, the sale and distribution of drugs or information about crimes that are being planned in the community.

"Please remember, this program is by no means meant to replace or supplement 911 for reporting emergencies," said Ritch. "If urgent help is needed, or if you are reporting an 'in progress' crime, always call 911."

All tips are reviewed by NIH Police investigative supervisors and will be acted upon as appropriate. The service is for investigative purposes only; therefore, tip submissions will not generate a call for service by an NIH patrol officer. The service is intended for tips regarding criminal activity only. "We cannot accept information regarding administrative matters," said Ritch.

TipSoft is currently used by NYPD, LAPD, Chicago Police Department, New Scotland Yard and across Canada. Additional information on TipSoft can be found at [www.smscrimetips.com](http://www.smscrimetips.com) and <http://tipssubmit.com>.

To submit a text tip, text the letters "NIH" plus your message to 274637 (CRIMES). To submit a web tip, go to [www.tipssubmit.com/WebTips.aspx?AgencyID=527](http://www.tipssubmit.com/WebTips.aspx?AgencyID=527).

Additional details about the program can be obtained by visiting the Division of Police web site at <http://ser.ors.od.nih.gov/police.htm>. For questions or additional information about the program, contact Ritch at (301) 496-3020 or [ritchj@mail.nih.gov](mailto:ritchj@mail.nih.gov).





## BULLYING

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**Above:** NICHD staff scientist Dr. Ron Iannotti (l) and research fellow Dr. Jing Wang (r) are currently investigating bullying behaviors in a study of 6th to 10th graders.

A large survey conducted in 2007 showed that nearly one-third of school-aged children reported having been bullied during the school year. And in another study, 53 percent of teens said that they had physically or verbally harassed someone else at school within the past 3 months.

In the aftermath of the recent, tragic bullying-related suicide of a 15-year-old girl in Massachusetts, as well as several other similar tragedies across the nation, parents and educators alike may be wondering “What makes someone a bully? What are the risk factors and can such behavior be prevented or thwarted?”

Evidence indicates that the key to raising a child who does not bully or take unfair advantage of others may lie, at least in part, in the home setting.

“What we do know, unequivocally, is that a warm, nurturing environment—where the child feels loved, important, safe and secure, enabling him or her to develop positive, social relationships—may decrease the odds of violent or bullying behaviors,” said Dr. Valerie Maholmes, director of the Social and Affective Development/Child Maltreatment and Violence Program, NICHD. While there are other risk factors for bullying, Maholmes added that a strong, secure attachment with parents and other role models helps kids explore the world and establish healthy relationships with others. Encouraging empathy at an early age is paramount also. On the contrary, parental neglect, abuse or a chaotic, unstructured home life may have the opposite effect.

Another NICHD staff scientist, Dr. Ron Iannotti, agrees that supportive family members can provide a buffering effect against bullying and other aberrant child or adolescent behaviors. The home is the proper place for social skills training, which he believes is critical to proper development and maturation.

Iannotti also suggests that “children who are exposed to violence at home are not only more likely to bully, but also they are more apt to become perpetrators of violence themselves.” Some of these findings are surfacing from his collaborative efforts with NIH research fellow Dr. Jing Wang; they are currently investigating bullying behaviors in a study of 6th to 10th grade students. The research is part of a larger protocol involving investigators from 40 other countries.

Evidence indicates that bullying peaks in middle school. Although the incidence of bullying in the U.S. has fallen—a trend not seen in any other country in the research that Iannotti and Wang conduct—the problem is still widespread and serious. And it’s not only males that are committing the offense. Experts note that female bullying is currently on the rise, often taking place via girl gangs.

Meanwhile, there are some gender differences in how children respond to an unhappy or frenzied home environment, setting the stage for engaging in or being the victim of violence.

“Males are more likely to exhibit externalizing behaviors such as physical aggression, while girls tend to internalize things. They may bully, but they are also more likely to exhibit depression, withdrawal or have eating disorders,” noted Maholmes.

While bullying is often viewed as a physical or verbal attack, today’s modern technology, in particular electronic media, has yielded another mode of attack: cyberbullying. This includes harassing or intimidating someone by text message, email or postings on social media sites such as MySpace or Facebook. The act has become so serious and widespread that some states are now trying to enact laws that make cyberbullying a misdemeanor.

The bottom line is that adults can take steps to keep their children from becoming bullies. Love your children, pay attention to them, give them emotional support, security and a stable home life and it will pay major dividends in this area, NIH researchers agree. 12



## Study Suggests Sickle Cell Disease May Affect Brain Function in Adults

Sickle cell disease may affect brain function in adults who have few or mild complications of the inherited blood disease, according to results of the first study to examine cognitive functioning in adults with sickle cell disease. The multicenter study, funded by the National Heart, Lung, and Blood Institute, compared brain function scores and imaging tests in adult patients with few sickle cell complications with results in similar adults who did not have the blood disease.

Researchers report that the brain function scores in sickle cell patients were, on average, in the normal range. However, twice as many patients as healthy adults (33 percent versus 15 percent) scored below normal levels. Those who were more likely to score lower were older and had the lowest levels of hemoglobin, the protein in red blood cells that carries oxygen in the blood, compared to sickle cell participants who scored higher. Findings from brain magnetic resonance imaging scans did not explain differences in scores.

Researchers at 12 sites within the NHLBI-supported Comprehensive Sickle Cell Centers conducted the study. Their results were published in the May 12 issue of the *Journal of the American Medical Association*.

"This study suggests that some adult patients who have sickle cell disease may develop cognitive problems such as having difficulty organizing their thoughts, making decisions or learning, even if they do not have severe complications such as stroke related to sickle cell disease," said NHLBI acting director Dr. Susan Shurin. "Such challenges can tremendously affect a patient's quality of life, and we need to address these concerns as part of an overall approach to effectively managing sickle cell disease."

## In Infants with Egg or Milk Allergy, Can Future Peanut Allergy Be Predicted?

Early results from a study of more than 500 infants with egg or milk allergy indicate that they are highly likely to test positive for allergic antibodies that are specific to peanuts. This unexpected finding suggests that these infants are at risk for developing peanut allergy later in

life and should be evaluated by a health care professional before introducing peanuts into their diet.

The findings appeared in the May issue of the *Journal of Allergy and Clinical Immunology*. These are the first published results from the clinical group of the Consortium of Food Allergy Research, a major food allergy research program supported by the National Institute of Allergy and Infectious Diseases.

Eggs, milk and peanuts are the three most common allergenic foods for infants. An infant who already has a milk or egg allergy is known to be at risk for later developing a peanut allergy. Another risk factor for peanut allergy is moderate to severe eczema (atopic dermatitis). This is the first systematic study, however, of the natural development of these three food allergies in very young children.

The researchers encourage parents of children with egg or milk allergy to talk to their doctor before incorporating peanuts or peanut products into their child's diet.

## NHGRI Researchers Use New Sequencing Strategies To Discover Rare Inherited Illness Rapidly

A team of researchers from the National Human Genome Research Institute has demonstrated a new technical strategy that promises to rapidly determine the genetic cause for very rare inherited illnesses. Relying on inexpensive, high-speed sequencing and a newly developed ability to capture pieces of the genome that encode genes, the team diagnosed an extremely rare X chromosome-linked cleft palate syndrome known to affect just two families.

The disorder, called TARP (talipes equinovarus, atrial septal defect, robin sequence, persistent left superior vena cava), is caused by a mutation in a gene called RBM10.

This is the first example of uncovering a gene defect on the X chromosome by analyzing DNA samples from unaffected carriers. In this case, the DNA came from the mothers of the two affected families. DNA was unavailable from any of the affected male infants because they died before, or soon after, birth. TARP syndrome is 100 percent lethal in males.

The findings were published in the May 14 issue of the *American Journal of Human Genetics*.

"This study demonstrates the feasibility of using new sequencing technologies to uncover causative genes for thousands of rare diseases, an effort that historically has been costly and arduous," said the paper's senior author Dr. Leslie Biesecker, chief of NHGRI's Genetic Disease Research Branch. "It is also gratifying to know that the two families known to be affected by TARP syndrome finally have answers about what causes the devastating disorder that has afflicted their families for decades."





## Police Day Observance Offers Food, Fun

It's not every day that an armored personnel carrier rolls up to the front of Bldg. 1, but that's exactly what happened May 12 during the 16th annual Police Awareness Day at NIH. Fifteen of the area's policing agencies responded to the call to participate and brought out the big guns to impress and educate the NIH community.

NIH's own men and women in blue served a barbecue lunch, the Federal Protective Service of the Department of Homeland Security brought one of its 4 mobile operations units, the Montgomery County Police Department rappelled off the roof of Bldg. 31A, the Maryland-National Capital Park Police brought one of its stately police horses, K9 teams from several agencies sussed out hidden fireworks in explosives demonstrations and the Maryland State Troopers did their best to convince even the most reluctant of seat belt adopters that it's worth buckling up.

Mark Stevens of NEI took the troopers' Seat Belt Convincer for a ride and said though he always wears his seat belt, the 10- to 15-mile-per-hour impact "was stronger than I thought it would be. That's quite an effective teaching tool." —Valerie Lambros



*Above, Cpl. Josh Scully (l) of the Maryland-National Capital Park Police sits astride Declan. The two are stationed at Montgomery County's Black Hill Regional Park. At right, NIH Master Firefighter Dave Myers hands out junior size fire hats to NIH preschoolers.*



**Above, l:** Mark Stevens of NEI takes a ride in the Maryland State Troopers' Seat Belt Convincer. The jolt received upon hitting the bumper at the bottom of the decline at only 10 to 15 miles per hour is enough to make seat belt doubters think twice.

**Above, r:** Officer Ben Tiongson of the Maryland-National Capital Park Police deputizes members of the NIH preschool with badge stickers. Tiongson's mother worked with the NIH day care center years ago.

**Left:** Rick Brenner of the NIH Police praises Coco, a German shorthaired pointer, after the dog found hidden explosives in a demonstration exercise.

PHOTOS: VALERIE LAMBROS